

## Lesson 18: Class Surveys (Optional)

### Standards Alignments

Addressing 2.MD.D.10, 2.OA.A.1, 2.OA.B.2

### Teacher-facing Learning Goals

- Collect, organize, and represent data from survey questions.
- Create questions related to survey data.
- Interpret results of a survey and represent findings.

### Student-facing Learning Goals

- Let's create our own surveys to get to know our classmates better.

### Lesson Purpose

The purpose of this lesson is for students to use what they have learned about data, bar graphs, and tape diagrams to create a survey and to organize, collect, and represent data. Students use their understanding of adding and subtracting to ask and answer questions related to the data.

This lesson is optional because it does not address any new mathematical content standards. This lesson does provide students with an opportunity to apply precursor skills of mathematical modeling.

In previous lessons, students analyzed and represented categorical data using picture and bar graphs. They generated statements, expressions, and equations based on the data in graphs and other displays.

In this lesson, students work in pairs to create their own survey question, collect categorical data, organize their data, and represent their findings with a bar graph or picture graph. Students are invited to represent comparisons with a tape diagram and equation that reflect what they learned about their classmates from their data.

This lesson supports the development of mathematical modeling skills by providing students opportunities to make choices about their approach for collecting data, determine appropriate equations to represent the situation, and choose ways to best represent their analysis (MP4).

This lesson is allocated to be more than 60 minutes, but it can be adjusted to meet the needs of the students. The activities can be modified to fit within 1 day or extend to span over 2 days.

### Access for:

#### Students with Disabilities

- Engagement (Activity 1)

## Instructional Routines

What Do You Know About \_\_\_\_? (Warm-up)

### Materials to Gather

- Colored pencils: Activity 1

### Lesson Timeline

Warm-up	10 min
Activity 1	30 min
Activity 2	15 min
Activity 3	15 min
Lesson Synthesis	10 min

### Materials to Copy

- Picture and Bar Graph Template (groups of 1): Activity 1

### Teacher Reflection Question

Reflect on how you can reinforce the work done in today's lesson outside of math class. When can you ask students questions involving organizing or interpreting categorical data? How can you incorporate this work into other subject areas, such as science or social studies?